DOCKET NO.: MSFT-2793/304866.01
Application No.: 10/726,080
Office Action Dated: April 16, 2008

PATENT
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37 CFR § 1.116

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1-7   (Canceled)

8.   (Currently Amended) A database system for storing data comprising Extensible Markup Language (XML) instances, said database system comprising:

a processor;

a computer readable storage medium having program code that causes said processor to perform a plurality of operations, said operations comprising:

generating a container for <u>a plurality of</u> XML schema ~~namespaces~~ <u>namespace universal resource identifiers (URIs), each namespace URI uniquely identifying a collection of element type and attribute names and identifying a location of a schema document corresponding to and defining the uniquely identified collection and thereby specifying a schema for any of a plurality of XML instances conforming to said schema document, each XML instance comprising a set of XML data conforming to the schema specified by a namespace URI</u>;

<u>placing in the container</u> ~~associating~~ at least two XML schema namespace universal resource identifiers (URIs) ~~with said container, at least one of said namespace URIs identifying a location of a schema document that defines a format for any of a plurality of XML instances conforming to said schema document~~;

validating an XML instance according to a schema document identified by at least one of said namespace URIs;

storing a validated XML instance in a database column; and

typing said database column with said container <u>so as to require that the XML instance stored in the column and any other XML instance stored in the column conforms to the schema of one of the XML schema namespaces in the container,</u> ~~and subsequently preventing the container from being removed from said database system unless said typing said database column is reversed, and~~ wherein said typing comprises validating any XML instances existing in said database column prior to said typing.

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9.   (Canceled)

10.   (Previously Presented) The database system of claim 8, said computer readable storage medium further comprising program code executable by said processor that comprises an import function which modifies said container so that it refers to at least one schema component in an XML schema namespace other than XML schema namespaces identified by said at least two XML schema namespace URIs.

11.   (Previously Presented) The database system of claim 8, said computer readable storage medium further comprising program code executable by said processor that comprises an include function which assembles URIs identified in a plurality of schema location attributes.

12.   (Previously Presented) The database system of claim 8, said computer readable storage medium further comprising program code executable by said processor that comprises an alter function which adds schema components to XML schema namespaces within said container.

13-19. (Canceled)

20.   (Currently Amended) A method of validating Extensible Markup Language (XML) instances to be stored in a column of a relational database, said method comprising:
        creating a container for a plurality of XML schema namespaces, each XML schema namespace uniquely identifying a collection of element type and attribute names and at least one of said namespaces identifying a location of a schema document corresponding to and defining the uniquely identified collection and thereby specifying a schema that defines a format for any of a plurality of XML instances conforming to said schema document, each XML instance comprising a set of XML data conforming to the schema specified by an XML schema namespace;
        placing in the container associating at least two XML schema namespaces with said container;
        typing a column of a relational database with said container so as to require that any XML instance stored in the column conforms to the schema of one of the XML schema

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namespaces in the container, ~~and subsequently preventing the container from being removed~~ ~~from said relational database unless said typing said column is reversed, and~~ wherein said typing comprises ensuring that any XML instances existing in said column prior to said typing conform to at least one schema document identified by a namespace in said container;

ensuring, prior to storing an XML instance in said column, that the XML instance conforms to ~~at least one~~ the schema ~~of~~ ~~associated with at least~~ one of said ~~at least two~~ XML schema namespaces in the container; and

storing said XML instance in said column upon so ensuring.

21. (Previously Presented) The method of claim 20, further comprising modifying said container so that the container refers to schema components in other XML schema namespaces.

22. (Previously Presented) The method of claim 20, further comprising assembling respective namespaces for a plurality of schema location attributes.

23. (Previously Presented) The method of claim 20, further comprising adding schema components to XML schema namespaces within said container for XML schema namespaces.

24. (Original) The method of claim 20, further comprising locating a schema that is referred to by an XML schema namespace in the container for XML schema namespaces.

25. (Currently Amended) A computer readable storage medium comprising computer readable modules having computer executable instructions for interfacing with a storage location for storing XML instances in a computing system, the modules comprising:

computer readable instructions for collecting a plurality of XML schema namespaces in a container for XML schema namespaces, each XML schema namespace uniquely identifying a collection of element type and attribute names and ~~at least one of said~~ ~~namespaces~~ identifying a location of a schema document corresponding to and defining the uniquely identified collection and thereby specifying a schema ~~that defines a format~~ for any of a plurality of XML instances conforming to said schema document, each XML instance

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comprising a set of XML data conforming to the schema specified by an XML schema namespace;;

computer readable instructions for typing ~~said database~~ a column of a relational database with said container so as to require that any XML instance stored in the column conforms to the schema of one of the XML schema namespaces in the container, ~~and subsequently preventing the container from being removed from said database unless said typing said column is reversed, and~~ wherein said typing comprises validating that any XML instances existing in said column prior to said typing conform to at least one schema document identified by a namespace in said container;

computer readable instructions for validating prior to storing an XML instance in said column that the XML instance conforms to [[a]] the schema of one of said ~~identified by said~~ XML schema namespaces in the container; and

computer readable instructions for storing said XML instance is in said database column upon so ensuring.

26.   (Canceled)

27.   (Previously Presented) The computer readable storage medium of claim 25, further comprising computer readable instructions for modifying said container so that said container refers to schema components in other XML schema namespaces.

28.   (Previously Presented) The computer readable storage medium of claim 25, further comprising computer readable instructions that assemble namespaces for a plurality of schema location attributes.

29.   (Previously Presented) The computer readable storage medium of claim 25, further comprising computer readable instructions that adds schema components to XML schema namespaces within at least one of said one or more containers for XML schema namespaces.

30.   (Previously Presented) The computer readable storage medium of claim 25, further comprising computer readable instructions that locate a schema that is referred to by an XML schema namespace in the container for XML schema namespaces.

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31 – 36. (Canceled)